

## CSAP's NECAPT Satellite Broadcast

### Implementing science-based programs effectively: A forum on fidelity and adaptation

On Wednesday April 16, the Northeast Center for the Application of Prevention Technology (CAPT) in collaboration with The Center for Substance Abuse (CSAP), the National Guard, and other regional CAPTs, delivered a satellite broadcast titled "Implementing Science-based Programs Effectively: A Forum on Fidelity and Adaptation." The forum was moderated by Dr. Wayne Harding, director of projects for Social Science Research and Evaluation in Burlington, Massachusetts. Dr. Paul Brounstein, director of the division of knowledge development and evaluation at CSAP, made a presentation on the state-of-the-art of prevention research in the areas of fidelity and adaptation. Dr. Karol Kumpfer, developer of the Strengthening Families Program and Dr. Andrea Taylor, the developer of Across Ages presented practice-focused segments designed for program developers and implementers. The final panelist, Pamela Adderley, a community implementer of Across Ages, shared first-hand adaptation experiences.

The forum had three objectives. First was to increase understanding of current research findings on fidelity, adaptation, and, in general, effective program implementation. The second was to increase understanding of the importance of balancing fidelity to a program with the appropriate use of adaptation. And the third was to increase understanding of what strategies and guidelines are available about how to strike the best possible balance between fidelity on the one hand, and adaptation on the other.

#### Dr. Wayne Harding

##### Introduction to Fidelity and Adaptation

For over five years now, CSAP, the National Institute for Drug Abuse, the National Institute on Alcohol Abuse and Alcoholism, the Centers for Disease Control and Prevention, and the U.S. Department of Education have committed themselves to promoting the adoption of science-based prevention programs and strategies. These are prevention activities that rigorous research has demonstrated produce the desired outcomes. As the use of these programs has expanded, so has the need for good and reliable information about how best to implement them in the field.

Two of the most common questions the CAPTs receive are *when* can I adapt science-based programs, and by *how much* can they be changed, without compromising the outcomes they produce? These questions reflect the tension between maintaining fidelity to these programs on the one hand, and making appropriate adaptations to them on the other so that they fit better with local circumstances and conditions.

A common understanding of fidelity and adaptation is an important place to begin to answer these questions. One definition of fidelity is that it is the agreement of a replicated program, or strategy, with the specification of the original. Another similar definition is

the degree of fit that exists between the developer-defined components of the program, and its actual implementation in an organization, or in a community setting.

On another level, if you propose a program, and propose from the outset to make adaptations to it, then you can also ask if the way in which you actually implemented this adapted program matches the way in which you planned to deliver it. In effect, there are two kinds of fidelity – fidelity to the original program and fidelity to the program as you propose to carry it out.

A definition of adaptation is the deliberate or accidental modification of the program. There are several types of adaptation to keep in mind. There are additions to a program, deletions to a program, and modifications to a program. These may occur with respect to its content, its delivery method, the target population, the setting in which the program takes place, and who delivers the programs. One thing to keep in mind is that while we sometimes think of adaptation as occurring at one moment in time when a program is about to be launched and implemented, adaptation can, in fact, take place over the life of a program. Also, adaptations to the evaluation of a program are potentially as significant as adaptations to the program itself.

Replicating a program brings with it a number of advantages - the advantage of having clear instructions to follow about how to implement the program. And a high likelihood of achieving the same outcomes as did the original program. On the other hand, the program may not meet exactly the needs of your target population, or exactly the conditions that you face in our community. And it may be that the program requires more resources to deliver than you have available.

The advantages and the disadvantages of replication are, essentially mirrored by the advantages and disadvantages of adaptation. By adapting the program, you can improve the fit between it and the needs of your local population. You can improve the fit with local conditions. And you may reduce its resource requirements. But adaptation can also reduce the chances that the program will produce the same outcomes as the original did.

#### Dr. Paul Brounstein

#### A Review of the Research

In striving to encourage evidence-based programs, CSAP recognizes the need for adapting a program based on the population it targets. A key issue is what is the evidence-base that speaks to the appropriateness of adaptation versus fidelity. One of the sources for data is the High-Risk Youth cross site evaluation. This study incorporated data from 48 sites and more than 10,000 youth between the ages of 12 and 17. The first and probably most important result of this study' is that prevention activities decreased substance use, or prevented it, and, certainly, were instrumental in delaying the onset of substance use.

Moreover, the study gave clear indications that different developmental ages require different interventions and developmental or age-appropriateness is very important. In

addition, males and females respond differently to similar types of programs. Where males respond directly to the programming while it's in place, females seem to take a longer time to internalize the message, but maintain it longer. The implication is that males may need the program in place longer or need a refresher.

Those programs that were culturally tailored had effect sizes about twice as large as programs that were not so adapted. The cultural tailoring got the youth to the program more often, got them to be more engaged in the program, and increased the effective dosage of the program.

So given the findings, we know that we can adapt programs. We know that science-based programs work. Is it also possible for programs to be replicated with very high fidelity? CSAP found the answer to be yes after conducting the replication initiative in 1994 and 1995. The greater the level of fidelity, the stronger the outcomes. Those who chose to do the replications highlighted other advantages. There was quicker, less resource-intensive startup and they had access to technical assistance and training.

So how do you determine whether it is better to maintain high fidelity or to adapt to population differences? Evidence gathered thus far suggests both are important but that adaptation should be done within certain limits. One principal limit is based on understanding what the core components or the key ingredients of a program are. It's important to maintain fidelity to the core components while looking to add in adaptations to make the program more engaging for your audience.

CSAP conducted a Core Components Analysis where 21 model programs were reviewed to determine commonalities. The first commonality was that successful programs maintained high fidelity to the program plan. They did what the program required them to do. Effective programs also tried to change systems. They used a consistent message, or messages, across a number of institutions, or actors. Parental involvement was often key. They used the language of the client. They made cultural adaptations that fit the client's developmental and cultural needs. It was imperative that training and technical assistance be available so that implementation had high fidelity and the implementers could get clear direction and guidance on what characteristics could be changed to make the program more culturally compelling.

So, evidence gathered thus far gives us the following preliminary guidance:

- Plan properly – know what your resources are, know what the needs of your population are, match these to programs and then adapt programs as necessary
- Maximize program fidelity to the core components whenever possible
- Add adaptations – don't change key components but rather make them culturally relevant
- Utilize program developers or accredited trainers to inform your adaptations
- Understand the program philosophy, the core components and the causal flow that links program activities to outcomes.
- Perform routine assessments

Dr. Karol Kumpfer, Dr. Andrea Taylor, Pamela Adderly  
A Practice-based Discussion

Drs. Kumpfer and Taylor along with Ms. Adderly used their programs, Strengthening Families Program and Across Ages, to illustrate practical, in-field learnings about balancing fidelity and adaptation. Their practice-based experience led them to the following conclusions that, though specific to their programs, have broad application.

Dr. Kumpfer discussed a number of basic elements that help insure a successful program implementation. These include utilizing effective, well-trained leaders and staff. Program developers can help in this by outlining the qualities and characteristics of successful group leaders and implementers. In addition, a program should have sufficient resources to incorporate the needed “extras” – food, transportation, incentives and childcare.

Dr. Kumpfer found that interactive/experiential techniques and booster or reunion sessions also were important in the Strengthening Families Program. Dr. Taylor and Ms. Adderly found for Across Ages that the more consistent and intense the mentor relationship was, the better the children did. Family participation was also an essential ingredient for success.

Both program developers were able to use their experience and evaluation data to delineate the core components for their respective programs. For Strengthening Families, these components are:

- Include all segments of program,
- Deliver the program sessions in order, and
- Include all supporting elements such as food, childcare, transportation and incentives.

For Across Ages:

- Recruit appropriate mentors,
- Involve community service,
- Include social competence training, and
- Create activities that involve mentors, children and their families.

Dr. Kumpfer’s research results indicate that recruitment and retention were improved by 40% when a culturally revised version of Strengthening Families was implemented. She also found that when sessions were deleted from the original program, the results were not as good. Cultural adaptations are important to get and keep people in program but you still need to deliver program in its entirety.

Dr. Taylor’s research and experience indicate that Across Ages, which is designed for middle-school students, can be adapted for an older or younger target population. That the community service activities can be altered that the social contemporary curriculum can be tailored to the specific audience, and that the program can be delivered in the community as well as in the schools. What cannot be changed is the need to deliver all four program components (mentoring of children by older adults, children’s participation in community services, and the social competency training, and monthly activities that

involve family members) the age and roles of the mentors, screening and training of mentors, training and orientation of all participants, vigilant monitoring of the mentor-youth matches, the qualities of the staff and having adequate staff. There must be an adequate dosage – the program cannot be shortened.

For both program developers, practice and experience have shown that planning is another critical aspect of successful program implementation. Many programs already have cultural and age adaptations developed, which provides the opportunity to select a version of the program based on the age and culture of your target population. Give yourself enough time to plan. Be sure to understand the community and school climate. And, understand the youth learning principles you wish to apply and match programs appropriately.

Many science-based program developers have the benefit of having had their programs evaluated over time and these studies may have identified elements of their programs can be adapted and which elements need to be implemented with high fidelity. Therefore, a clear opportunity exists for implementers to seek the advice of the developer of their chosen program to make sure that their implementation is based on the program's theoretical underpinning and that they understand the limits of adaptation.

For more information about model programs, please visit:

[www.modelprograms.SAMHSA.gov](http://www.modelprograms.SAMHSA.gov)

For technical assistance, contact the CSAP Technical Assistance Centers. Information about the national CAPT system is available at [www.captus.gov](http://www.captus.gov)

**Dr. Paul Brounstein**- Director of the Division of Knowledge Development and Evaluation at the Center for Substance Abuse Prevention, CSAP.

At the division, his efforts are focused on making the links between prevention research and prevention practice more functional. He oversees all discretionary grants managed by the division, including current grants on high-risk youth, mentoring, children of substance-abusing parents, teen parents and welfare reform, family strengthening, and community-initiated prevention programs. Dr. Brounstein is also responsible for ensuring that information developed from these grants is translated in a way which makes the information readily useable by the field. And as part of that task, he's one of the folks at CSAP who oversees the National Registry of Effective Prevention Programs, or NREPP, which identifies effective model programs so that they can, in fact, be disseminated and moved to the field.

**Dr. Wayne Harding**- Director of Projects for Social Science Research and Evaluation in Burlington, Massachusetts. And the evaluator for CSAP's Northeast CAPT.

**Dr. Karol Kumpfer-** Ms. Kumpfer has some 20 years experience in drug abuse prevention and treatment. She recently served as the director of the Center for Substance Abuse Prevention. A psychologist and author who promotes a substance abuse prevention model built on strengthening and empowering families, Dr. Kumpfer is an associate professor of health education at the University of Utah. Her research and publications are in the area of family, school, and community interventions to prevent drug abuse in youth, and in the areas of needs assessment and evaluation measurement, as well. Dr. Kumpfer has served as president of the Society for Prevention Research, and chair of the

**Dr. Andrea Taylor.** Dr. Taylor is the Director of Youth Develop Initiatives at Temple University's Center for Intergenerational Learning. She's also a senior research associate with Temple University's Institute for Survey Research, and is involved in studies of programs designed to prevent tobacco use with adolescents. She's the principal investigator project director of several prevention programs that use Intergenerational mentoring to prevent school failure, substance abuse, and teen pregnancy. And one of these programs, Across Ages, is the focus of our discussion today.

Dr. Taylor provides consultation training and technical assistance to a variety of private organizations, universities, school districts, and federal and state agencies. Subcommittee on Effective Prevention Programs for the American Psychological Association's Task Force on Prevention.

**Pam Adderley** is the prevention coordinator for the Across Ages Dissemination Project, which serves middle school students attending after-school programs in the city of Philadelphia. Pam has had extensive experience working with urban youth and their families. Prior to her current employment at Temple University Center for Intergenerational learning, Ms. Adderley worked at Big Sisters of Philadelphia. She also worked as a positive youth development training specialist, and youth development counselor, and a mentor and pregnancy prevention facilitator. She also, currently, in addition to her work at Temple, volunteers as a rape crisis counselor at the Jefferson University Hospital, in Philadelphia.